

**REMARKS**

In an office action dated 3 October 2003, the Examiner objects to the drawings, specification and claims. The Examiner also rejects claims 1-7. In response to the office action, Applicants amend the drawings, specification, and claims 1-7. Applicants also respectfully traverse the rejections. In light of the amendments and arguments sent forth below, Applicants respectfully request that this application be allowed.

Applicants have amended the drawings and specification to address the deficiencies cited by the Examiner. Specifically, Applicants have amended to include the unlabeled I/O in FIGS. 6 and 13. Applicants have also included red-lined drawings of FIGS. 16A and 16B to include connections of tri-state buffers. Applicants have also amended the specification to status of all references. Furthermore, Applicants have amended the abstract to conform to USPTO rules.

Therefore, Applicants respectfully request the objects be removed.

The Examiner has objected the claims under 35 U.S.C. §112(1). Applicants have amended claim 1 to recite a system and include all related information in the preamble. Therefore, Applicants request this objection be removed.

The Examiner rejects claims 2, 3, 6 and 7 under 35 U.S.C. §112(2). Applicant has amended the claims to better describe the invention. Therefore, Applicant respectfully request these rejections be removed.

The Examiner rejects claim 1 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent Number 6,285,212 issued to Kaptanoglu (K). To anticipate a claim under 35 U.S.C. § 102, a single source must contain all of the elements of the claim. *Lewmar Marine Inc. v. Barent, Inc.*, 827 F.2d 744, 747, 3 U.S.P.Q.2d 1766, 1768 (Fed. Cir. 1987), cert. denied, 484 U.S. 1007 (1988). Moreover, the single source must disclose all of the claimed elements “arranged as in the claim.” *Structural Rubber Prods. Co. v. Park Rubber Co.*, 749 F.2d 707, 716, 223 U.S.P.Q. 1264, 1271 (Fed. Cir. 1984).

Claim 1 recites programmable interconnect elements located at said intersections of said plurality of vertical conductors and said plurality of horizontal conductors in a diagonal orientation thus connecting each one of said plurality of horizontal conductors to one of said plurality of vertical conductors.

K does not teach this limitation. K does teach a high system in which programmable elements are used to connect tiles. However, K does not teach having vertical and horizontal conductors with the interconnects arranged in a diagonal manner to connect one horizontal conductor to one vertical conductor. In K, conductors are connected by an F-circuit. This requires more mapping of the circuits and more real estate in a FPGA. The present invention uses the diagonal configuration to minimize the real estate of the freeway system. Therefore, amended claim 1 is not taught by K. Thus, Applicants respectfully request that the rejection to claim 1 be removed and amended claim 1 be allowed.

Claims 2-7 are dependent upon amended claim 1. Thus, claims 2-7 are allowable as being dependent upon an allowable independent claim. Therefore, Applicants respectfully request that claims 2-7 be allowed.

If the Examiner has any questions regarding this response or the application in general, the Examiner is invited to telephone the undersigned at 775-586-9500.

Respectfully submitted,  
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Dated: January 5, 2004

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